SUPERCIRCUITS

MDVR-14
SOLID STATE MINI DVR
User Guide

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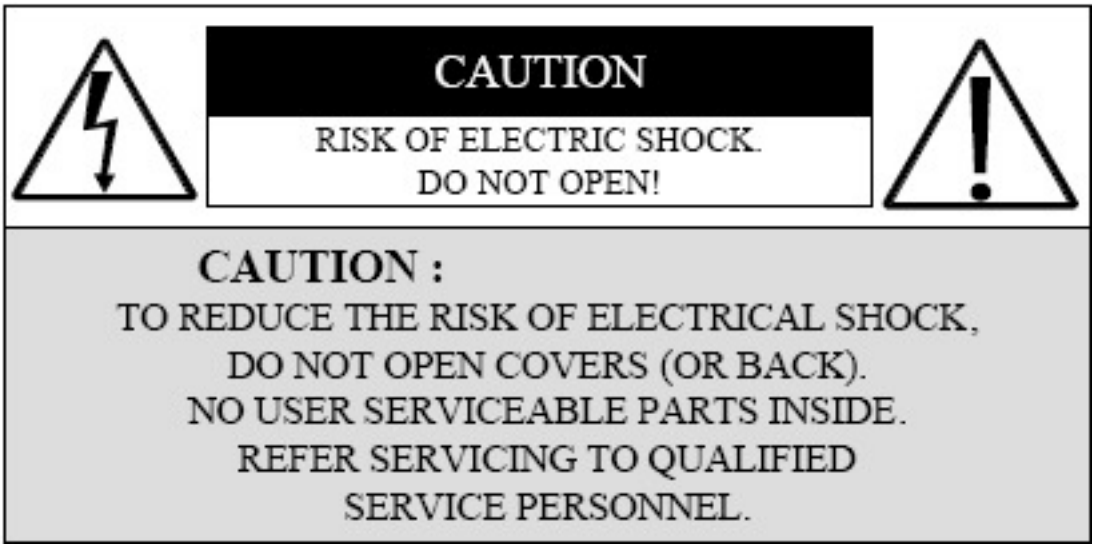
1. SAFETY PRECAUTIONS



Read the Safety Precaution Guide through carefully before operating the product, to prevent unsafe use of this product.

WARNING: The triangle symbols above are intended to alert the user to the presence of un-insulated dangerous voltage.

CAUTION: This symbol is intended to alert the user to presence of important operating and maintenance (Servicing) instructions in the literature accompanying the appliance.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office , your household waste disposal service or the shop where you purchased the product.

Do not Plug and unplug the power cord, it may result product malfunction. Do not install the product in an environment where the humidity is high. Do not drop the product or subject the unit to physical shocks. Never place the product in direct sun light can cause damage. **Do not spill liquid on the product.** If the unit gets wet, wipe it dry immediately. **Do not install the product in extreme temperature conditions. Operating** temperatures are between 5 degrees C (41 degrees F) ~ 45 degrees C.(113 degrees F). Provide ventilation when operating under high temperatures.

2. FEATURES

- DVR supports NTSC or PAL video, and auto detects video loss.
- DVR comes with MPEG4-SP video and Audio Codec G.726. Supports 1 channel video, 1 channel audio recording and playback .
- Uses SD card with FAT16/ 32 file system and ASF file format.
- You can view video using popular PC media players.
- Record time for 1 GB SD card is about 5 hours when DVR is set at Standard Quality, NTSC: 30 fps @ 352 x 240 and PAL: 25 fps @ 352 x 280.
- Motion detection, schedule recording mode with independent video size, quality, and frame rate set up.
- Adjust motion sensitivity to control different types of motion triggers.
- Disable controls with key lock function.
- Use a 110AC/ DC power adaptor for indoor or nickel metal hydride (NiMH), alkaline batteries for remote applications.

3. PACKING LIST

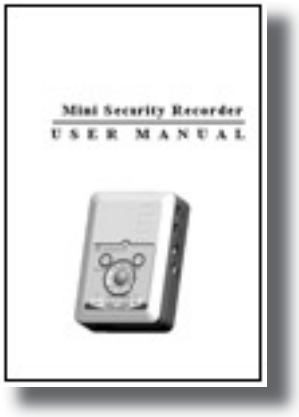
Check to make sure all of the items shown below are included in your Recorder Kit. If something is missing, contact your dealer as soon as possible.

Mini DVR Recorder

Audio/ Video Cable X 2

Quick Guide

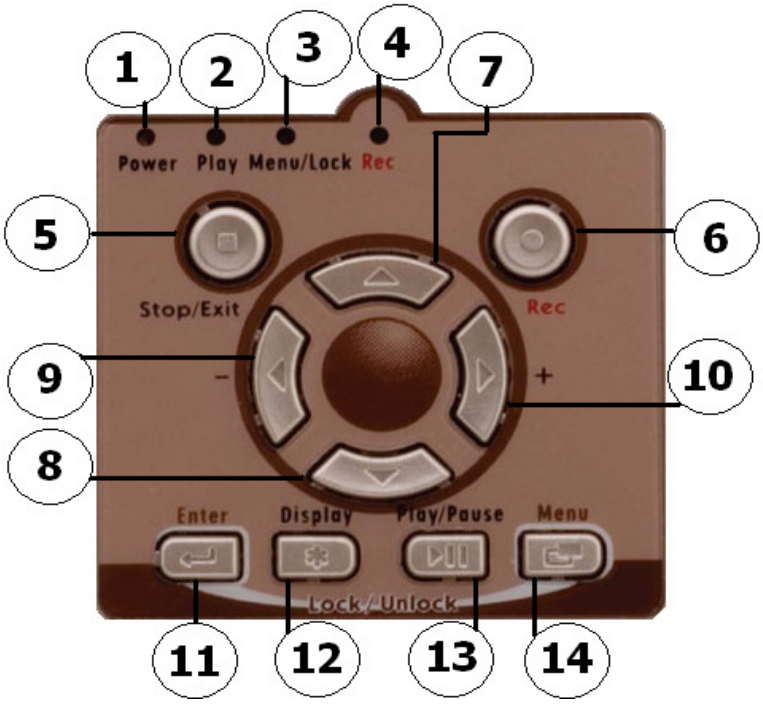
Manual



Power Adaptor
Input: AC 100~240V
Output: DC 5V/ 1A

4. MDVR14 DESCRIPTION

4.1 Front View



1. Power LED: Power Indicator

2. Play LED: Play Indicator

3. Menu/ Lock LED: Menu/ Key Lock indicator

4. Rec LED: During recording, record indicator will flash slowly. On playback recording is disabled and the record indicator will flash quickly.

Warning: LED's 2, 3, 4, will flash quickly when recording is disabled, causes can be SD card is not inserted, full, damaged, or setup to read-only. Press Enter button to reset warning.

5. Stop/ Exit Button: Stop Record or Play/ Exit Menu

6. Rec Button: Manual Record Button

7. & 8. Up Button/ Down Button: Moves cursor Up/ Down for menu selection.

9. & 10. - Left button/ + Right Button:
In Playback - Press to Fast Forward or Fast Rewind.
In Pause - Press **- L** & **+ R** buttons to Step Playback.
In Menu - Press to Increase/ Decrease Setup values.

11. Enter Button: Use to enter Sub-Menu.
Use to reset warning.
Use to Key Lock/ Unlock: During monitoring or playback - Simultaneously pressing Enter first and then the Menu button to switch Key Lock ON or OFF.

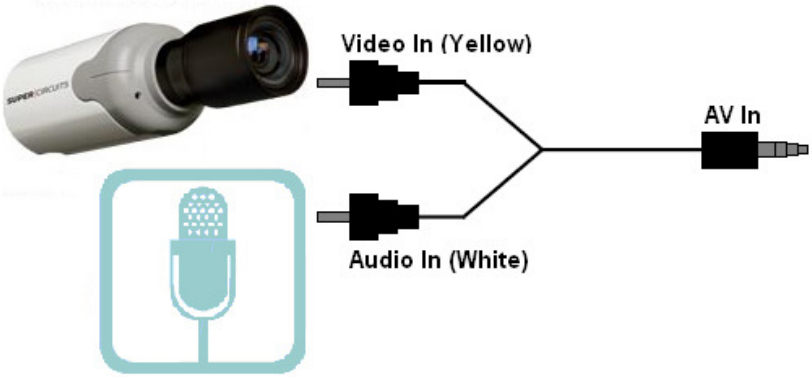
12. Display Button: Display status Line ON or OFF.

13. Play Button: Press to Playback.
Pause Button: During playback - Press to Pause, press again to play.

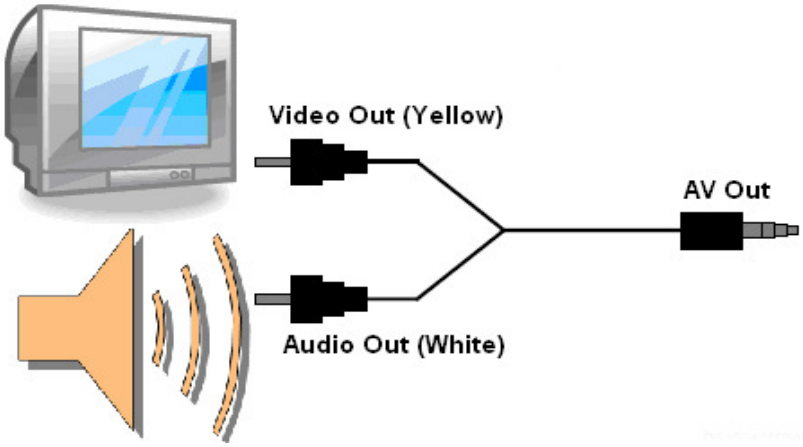
14. Menu Button: Press to enter Menu Setup.

4.2 Side View

(15) AV IN: Audio/ Video Input: 3.5 mm jack for audio/ video line in.



(16) AV Out: Audio/ Video Output 3.5 mm jack for audio/ video line out.



(17) POWER: DC/ Battery Power Switch

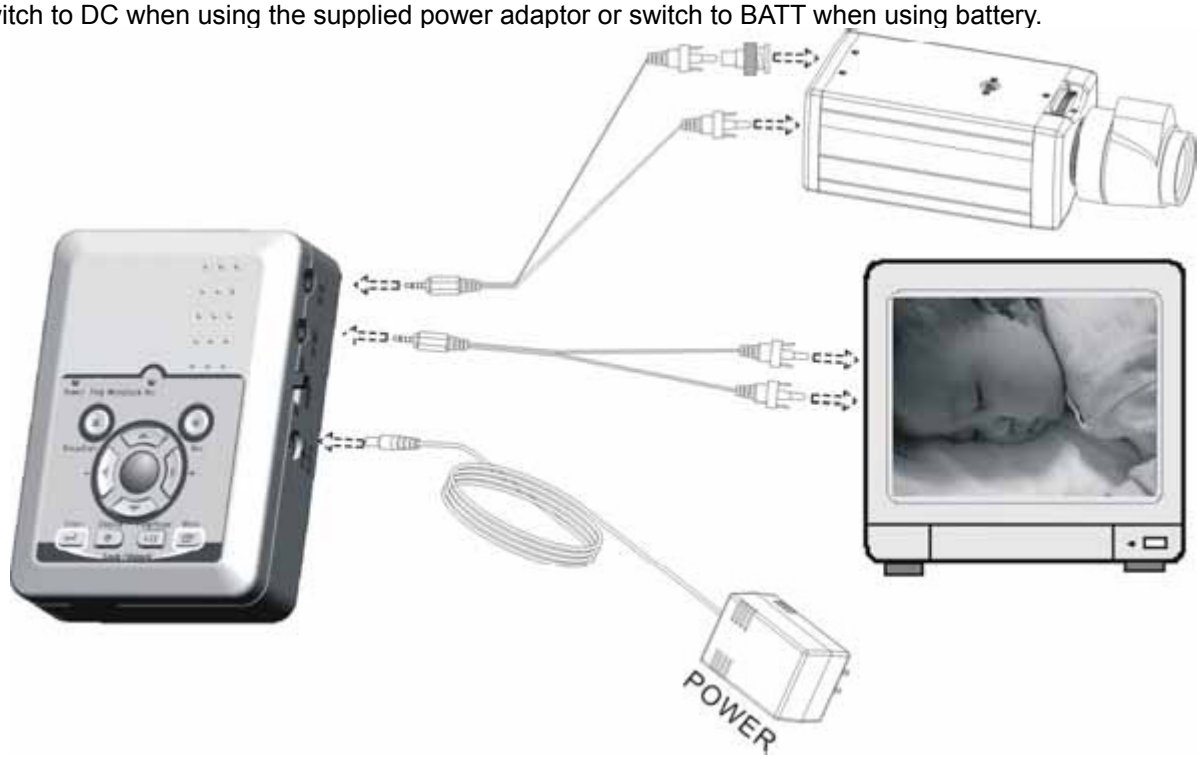
(18) DC 5V IN: 5V/ 1A Power Input

(19) SD Card Slot

(20) Battery Compartment Cover

5. BASIC CONFIGURATION

1. Power: Use the power adaptor supplied, or a nickel metal hydride (NiMH), alkaline batteries.
2. Connect the camera to AVI input, MDVR will auto detect NTSC/ PAL video.
3. Switch to DC when using the supplied power adaptor or switch to BATT when using battery.



⚠ Use (256MB or above) SD Memory Card.

⚠ Remove SD card when the power is off or when in the main menu display. Removing the SD card under any other circumstance will corrupt stored video or data.

6.0 DISPLAY

6.2.1 SD Card status

1. “ ” icon displayed in bottom right hand corner on the status line, indicates that SD card is operating normally.

2. This icon indicates SD card is not inserted or is malfunctioning. Try re-formatting before proceeding.

3. SD card is in self test.

4. SD disk is full and in overwrite. Old data is being overwritten.

6.2.1 Record status

1. **MQ** Symbol is your Record Quality indicator.
   a. H - High b. M - Med c. L - Low

2. Icon indicates audio is ON. Audio is OFF.

3. **2022/02/05 06:00:18** is the Date and Time and and should be reset as soon as possible. See setting date and time in this manual.

4. Record Resolution, set resolution see setting resolution in this manual.

5 Manual Record: Press (**Rec**) button, to enter manual recording or record on demand. For more information, see Manual Recording in In this manual.

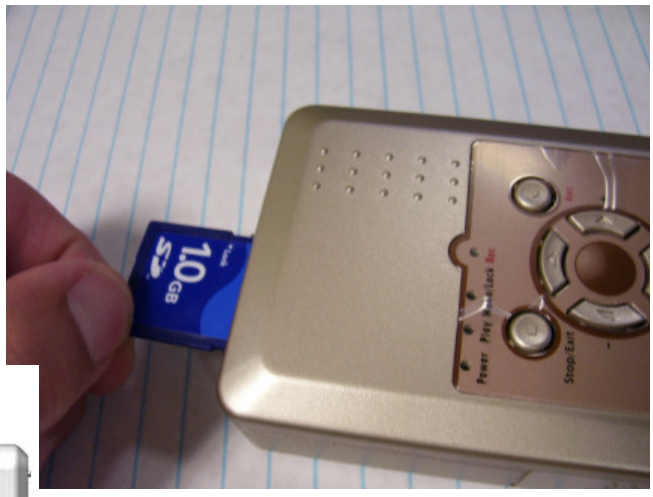
6 Motion Detection Record: Icon represents you are recording only when images are in motion. See Motion Recording in this manual.

7. Schedule Recording: MDVR is in schedule mode will record only on set dates and time. See Schedule Recording in this manual.

8. Indicates recording is in progress.

NOTE: When recording, record indicator will flash slowly.

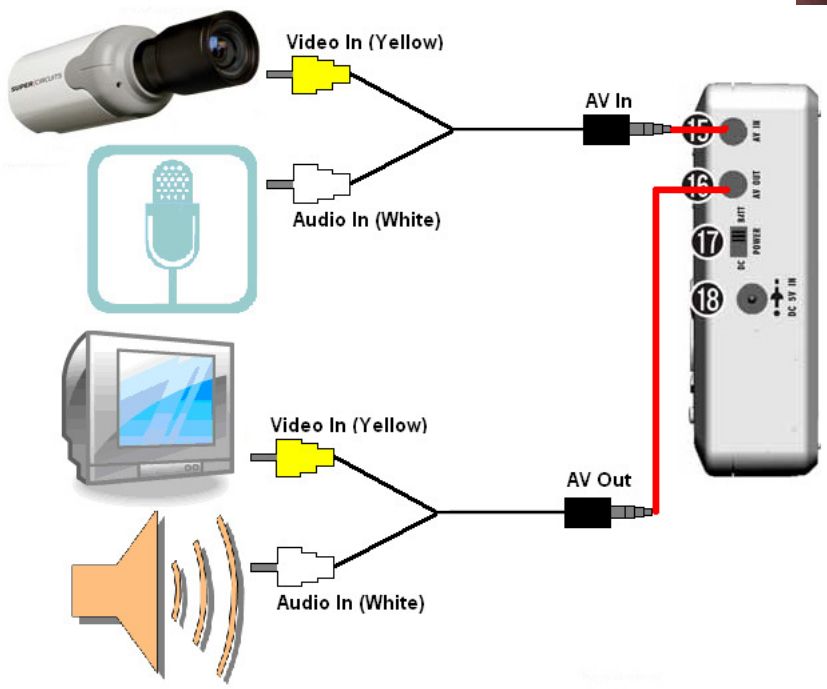
7.0 OPERATION



7.1 HARDWARE SETUP

1. Insert SD card into MDVR14 SD slot while the unit is off.

2. Plug AV IN cable in MDVR14 AV IN and connect camera to yellow AV IN cable connector. Connect AV OUT cable to MDVR14 AV OUTPUT and connect yellow AV OUT cable to monitor.



NOTE: ⚠ Do not remove the SD card while booting, this will corrupt your video recording.

7.2 Power On

1. Switch power to DC when using the supplied power adaptor or switch to BATT when using battery.

   NOTE: MDVR will auto-detect external peripherals. While booting up the REC LED will start flashing indicating SD card test.

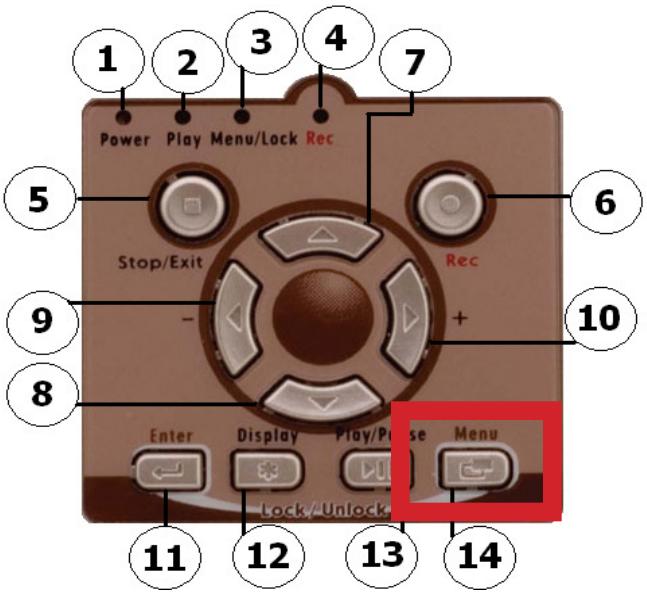
2. After powering on, the system will start displaying live video. If the SD card is not installed you will get a message telling you the “SD CARD IS NOT READY” and Play, Menu, and Rec LED’s will start flashing.

NOTE: If the MDVR experiences power loss the system will automatically return to the previous settings.

8.0 MAIN MENU

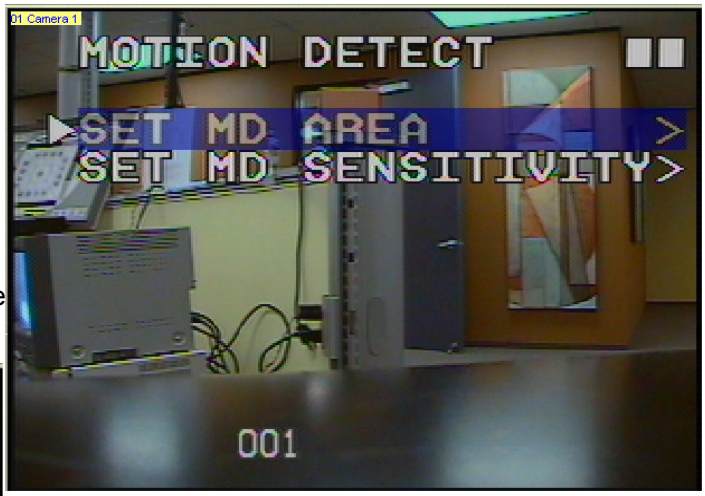
8.1 DATE/ TIME SETUP

1. Press Menu button and you will see the MAIN MENU. Select SET DATE/ TIME and press the ENTER button on MDVR14. Set time and date by using + and - buttons to change date values and Up/ Down buttons to scroll up and down. Press Exit button to exit menu.



8.2 MOTION SETUP

1. Move cursor to SET MOTION DETECT and press the ENTER button. Select SET MD AREA by pressing ENTER button. Select MODE type by pressing Play/Pause button.



MODE TYPES:

FUNCTION	DESCRIPTION
CELL EDIT	Single detection cell setup (detection/ non-detection)
DEL BLOCK	Disable a block.
DEL ALL	Disable all cells.
ADD BLOCK	Enable a block.
ADD ALL	Enable all cells.

2. SELECT ALL mode will enable motion detection for entire viewing screen and is indicated by a red screen.

3. DEL ALL mode will disabel motion detection for entire viewing screen and is indicated by a blue screen.

4. CELL EDIT mode will custom enable or disable motion detection areas. Use arrow keys to select cell for enabling or disabling and press enter key to switch between motion enable or disable.

5 DEL BLOCK mode will disable motion cells.

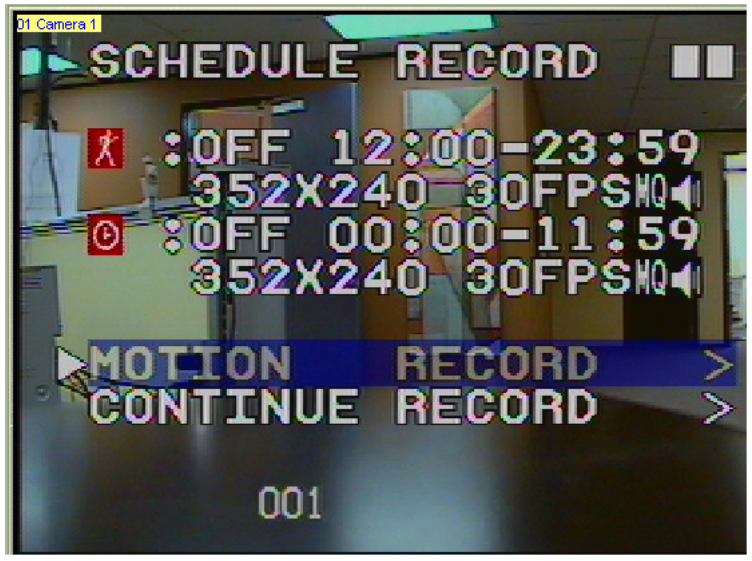
6. ADD BLOCK mode will enable motion cells.

7. Blue area indicates motion disabled area, red area indicates motion enabled areas. Press EXIT button to exit MD AREA.

8. Select SET MD SENSITIVITY, set the threshold for motion detection. Moving the red bar towards the left will set the sensitivity high and moving the red bar towards the right will set the motion sensitivity to low,

9. Press the EXIT button twice to exit SET MD SENSITIVITY

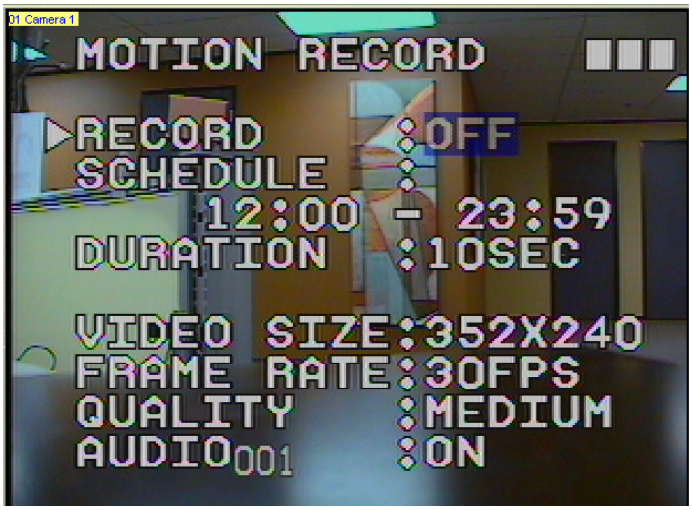
10. Select SCHEDULE RECORD from MAIN MENU and switch motion to ON. Set the desired resolution and FPS (frame per second). Leave motion schedule OFF. Select MOTION RECORD and press the ENTER button.



NOTE: Use CONTINUE RECORD to schedule your recordings if motion recording is not a option at times during the day.

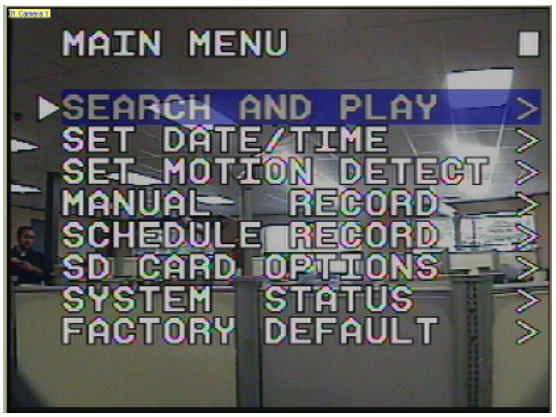
11. Set RECORD to ON and SCHEDULE to 00:00 23:59 to schedule motion recording 24 hours a day. You can schedule your recording for a specific time during the day, but for this example we will expect to monitor motion 24 -7

12. Set your desired VIDEO SIZE, record DURATION, FRAME RATE, QUALITY and AUDIO ON if audio is needed. Press the EXIT button twice to exit motion setup. Use + and - buttons to change values.



8.3 MANUAL RECORD

13. Use MANUAL RECORD, when wanting to record on demand.

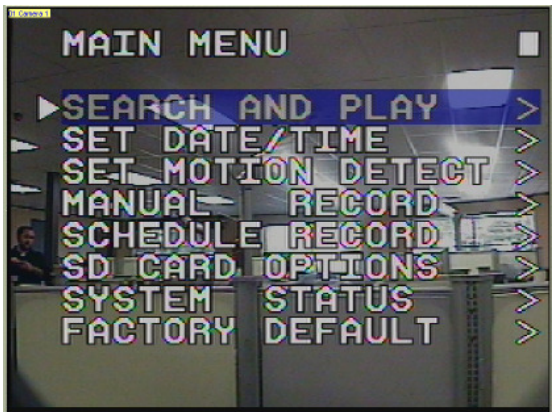


NOTE: If all three recording options are used, Manual, Motion, and Schedule, the priority for recording is 1. Manual 2. Motion 3. Schedule recording.

8.4 Playback

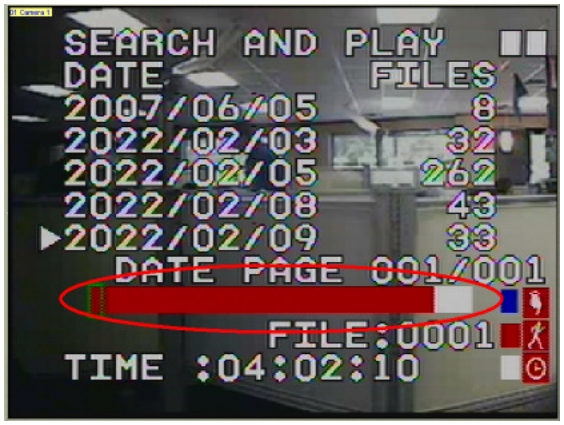
8.4.1 Continuous Playback

1. Press ▶ ❚❚ Play/ Pause button for normal playback. Playback will start with most recent file and continue to play all files.
2. Press ▶ for normal playback speed.
3. Press ▶ ❚❚ for Fast Rewind and Fast Forward (Speed: x2/ x4/ x8/ x16/ x32).
4. Press ❚❚ Pause to during playback button to pause playback and press twice to return to playback.
5. Press ◀ ▶ left or right buttons during pause to step back or forward one frame at a time and press Play/ Pause button to return to normal speed playback.
6. Press ✱ Display button to hide all Display status.
7. Press ■ Stop button to stop playback and return to live status.



8.4.2 Search Playback

1. Press MENU button and select **SEARCH AND PLAY**. Select file to play, press play or enter button to play.
2. Color bar indicates type of recording (Blue Manual record, Red Motion record, White Schedule record).
3. Use up and down arrow buttons to control cursor for selection.
4. Use Stop button to stop playback and return to SEARCH AND PLAY.

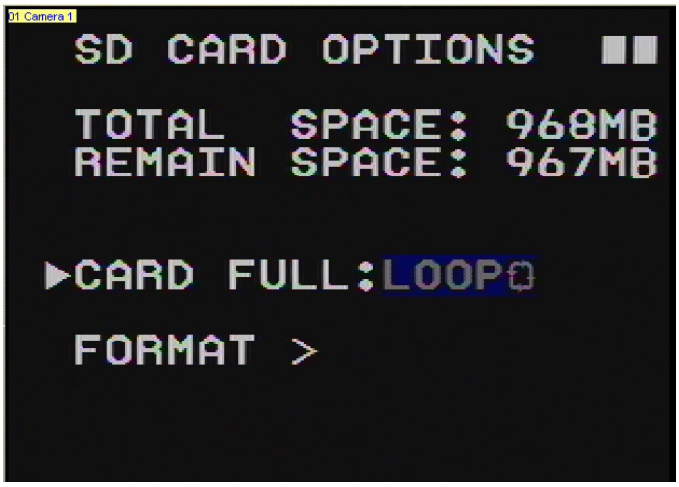


8.4.3 PC Playback

1. SD card can be removed and directly played using a PC.
2. Open SD card files using Microsoft - Media Player or DivX-DivX Player. Use lastest Media Player available. Go to www.divx.com to down load. All files are located using DVMPG4 folder and are partitioned in 1MB files.
3. Can copy PC files to SD card for DVR playback.
4. Use a card reader to view files, plug card reader into the computer using the USB cable. Insert the SD card into the appropriate SD slot and wait for Windows to identify and open your SD files.

NOTE: You can either play or record but, you cannot do both at the same time.

9.0 SD CARD



1. Format SD card by inserting into MDVR and selecting SD CARD OPTIONS from MAIN MENU. Select FORMAT and press the enter button. Select YES by pressing the ENTER button. FORMAT OK will display on the screen and you are ready to record.

2. In the same menu, you can set the MDVR14 to overwrite previous data to keep recording by selecting LOOP in CARD FULL.

   STOP option under CARD FULL will stop recording when SD card is full.

NOTE: ⚠ Do not remove the SD card while booting, this will corrupt your video recording.

10. FACTORY DEFAULT

1. Use FACTORY DEFAULT to reset the MDVR when you have hardware issues or simply to default to factory settings. Select FACTORY DEFAULT from MAIN MENU and press ENTER button. Press ENTER button again to confirm.

11. KEY LOCK

1. Simultaneously pressing “Enter” and “Menu” button will switch to Key Lock “ON/ OFF”. When Key Lock key is locked, key lock indicator will flash slowly.

12. SPECIFICATIONS

<table>
<tr><td rowspan="10">Video</td><td>System</td><td colspan="5">NTSC / PAL Video System and Video Loss Auto Detection</td></tr>
<tr><td>Codec</td><td colspan="5">MPEG4-SP ASF File Format</td></tr>
<tr><td>Record Frame Rate</td><td colspan="5">1, 2, … , Maximum fps selectable
Maximum:
NTSC: 30 fps@352x240/ 24 fps@704x240/ 12 fps@704x480
PAL: 25 fps@352x280/ 20 fps@704x280/ 10 fps@704x560</td></tr>
<tr><td>Record Quality</td><td colspan="5">Low / Medium / High</td></tr>
<tr><td rowspan="4">Record Time*
*it may change for different video content
(1 GB SD Card)</td><td>Frame Rate@ Resolution
Quality</td><td colspan="2">30 fps@352x240
25 fps@352x280</td><td colspan="2">24 fps@704x240
20 fps@704x280</td><td>12 fps@704x480
10 fps@704x560</td></tr>
<tr><td>Low</td><td>400 minutes</td><td>240 minutes</td><td colspan="2">240 minutes</td></tr>
<tr><td>Medium</td><td>300 minutes</td><td>150 minutes</td><td colspan="2">150 minutes</td></tr>
<tr><td>High</td><td>150 minutes</td><td>75 minutes</td><td colspan="2">75 minutes</td></tr>
<tr><td>Recording Date/Time</td><td colspan="5">Overlay with Video Images in ASF File</td></tr>
<tr><td>Input</td><td colspan="5">1 CH Composite Video Line In</td></tr>
<tr><td>Output</td><td colspan="5">1 CH Composite Video Line Out</td></tr>
<tr><td rowspan="4">Audio</td><td>Sampling Rate</td><td colspan="5">44.1 KHz</td></tr>
<tr><td>Codec</td><td colspan="5">G.726/ 32 kbps</td></tr>
<tr><td>Input</td><td colspan="5">1 CH Audio Line In</td></tr>
<tr><td>Output</td><td colspan="5">1 CH Audio Line Out</td></tr>
<tr><td colspan="2">Storage Media</td><td colspan="5">SD Card (FAT16/ 32)</td></tr>
<tr><td colspan="2">Recording Mode</td><td colspan="5">Manual / Schedule Motion Detection / Schedule Continue</td></tr>
<tr><td colspan="2">Motion Detection Setting</td><td colspan="5">Multiple Blocks and adjustable sensitivity</td></tr>
<tr><td colspan="2">Event Search Function</td><td colspan="5">Property and first image of selected file is displayed</td></tr>
<tr><td colspan="2">Playback Function</td><td colspan="5">Play/Fast Forward/Fast Rewind/Pause/Step Forward/Step Backward</td></tr>
<tr><td colspan="2">Playback Speed</td><td colspan="5">x1/ x2/ x4/ x8/ x16/ x32</td></tr>
<tr><td colspan="2">Power Supply</td><td colspan="5">DC 5V± 10% 1A/ 2 x AA (Rechargeable Ni-MH/ Alkaline Battery)</td></tr>
<tr><td colspan="2">Battery Lasting Time</td><td colspan="5">2 x AA Ni-MH: 180 min/ 2 x AA Alkaline: 100 min
* It may change for different brand, charging, and temperature condition.</td></tr>
<tr><td colspan="2">Weight</td><td colspan="5">89 g (without Battery/ SD card)</td></tr>
<tr><td colspan="2">Dimensions</td><td colspan="5">65 mm (W) x 90 mm (H) x 29 mm (D)</td></tr>
<tr><td colspan="2">Operating Environment</td><td colspan="5">30%~80% RH, 5C~ 45C(41F~ 113F) C = Centigrade F = Fahrenheit</td></tr>
<tr><td colspan="2">Storage Environment</td><td colspan="5">30%~90% RH, 0C~ 50C (32F~ 122F)</td></tr>
</table>